Woodsmith PLANS

CHEESE & CRACKER TRAY

© 2014 August Home Publishing Co.

Weekend Project

Cheese & Cracker Serving Tray

This wood tray and cutting board are sure to be a hit at your next party. Packed with fine details, they're as fun to build as they are to use.

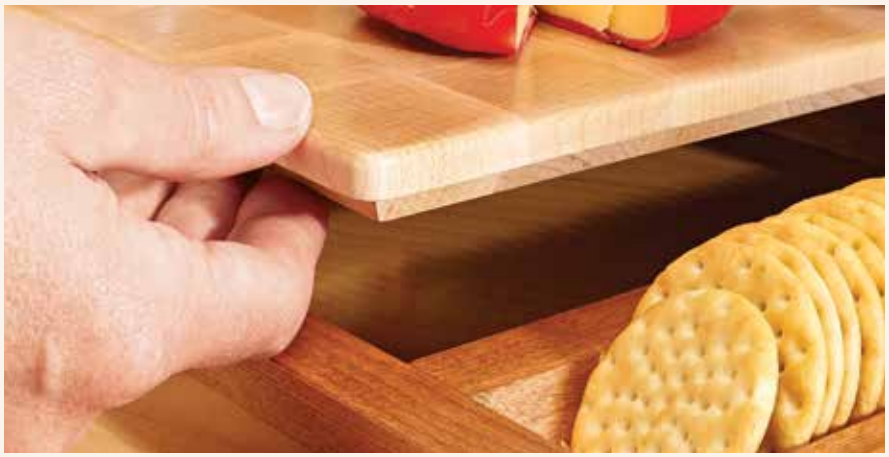
I enjoy building cabinets as much as the next guy, but every once in a while it's nice to scale things back and build a simple project. And with just three different project parts, this tray won't be too taxing to your materials' budget.

At the same time, though, this tray also doesn't skimp on the interesting woodworking techniques. You'll find a little bit of everything here — from coves cut on the table saw to band-sawn curves to a glued-up cutting board. It's a fun little project that's sure to keep your weekend busy.

EYE-CATCHING TRAY. As you can see, the end result is a solid-wood tray that you'll be proud to bring out for your guests at your next get-together. Its pleasing combination of solid cherry and maple, along with its graceful curves and coves, will definitely turn heads. Of course, it's also just as perfect for movie night for two as it is for a whole party.

The tray looks stylish, but all these details have a purpose, too. The coves on the top of the tray are perfectly sized for your favorite crackers. The pleasing curves on the ends are under-cut to create a pair of handles. And then there's the end-grain cutting board, which is well-suited for slicing cheese, olives, meats, or whatever else the occasion demands. The cutting board is also easily removable from the tray (margin photo at left). This allows for fast cleanup, and the board makes a great stand-alone piece all on its own.

INTERESTING BUILD. Some of the techniques, like the table saw coves, may seem a bit challenging at first. But there are plenty of step-by-step illustrations over the following pages to make building your own tray a snap.



▲ Beveled edges allow the end-grain cutting board to rest within the opening in the serving tray. Simply lift it out for easy cleanup or to use as a separate food station.

©2014 August Home Publishing Co. All Rights Reserved.

start with the TRAY ENDS

The basic tray consists of four parts: Two tray ends that receive coves on both faces, as shown at right, and a tray front and back that surround the ends. You'll build the tray first before getting started on the cutting board that fits in the middle.

PREP THE ENDS. The tray ends are made from a single blank of 1"-thick cherry. So you'll want to plane a piece of stock for the ends. Now cut the blank to width but leave it extra-long, as shown in the drawing above right.

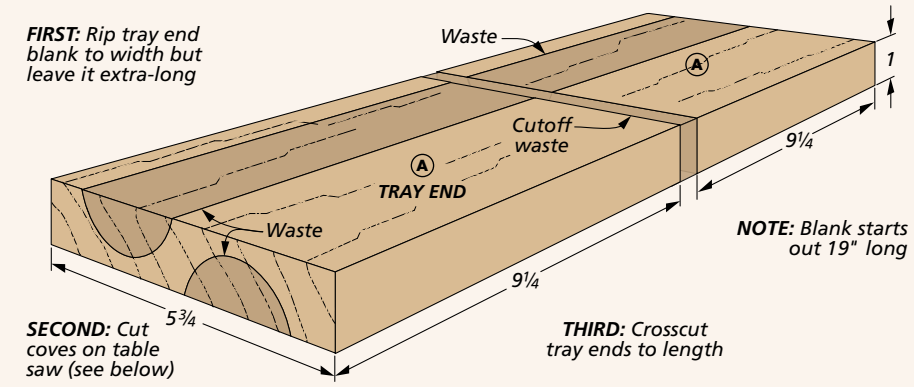
CUTTING COVES. The reason you're starting with a longer blank is simple. The next steps involve setting up and cutting the coves on the tray ends at the table saw, and it's faster and easier to cut the coves in a longer blank than in a pair of shorter workpieces.

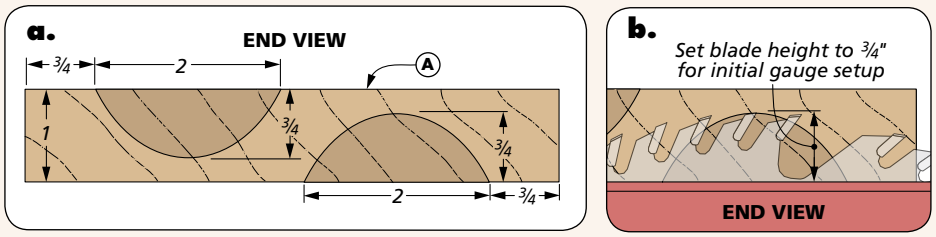
Making coves at the table saw involves passing the board at an angle over the table saw blade. This sounds a bit unorthodox, but I assure you that it's quite safe and pretty easy, as well. The important thing is to go through the proper setup steps and raise the blade in very small increments between passes.

SET THE ANGLE. To make this cut safely, you'll need to set a couple of fences at the proper angle to guide the workpiece. That process is illustrated in Figure 1 at right. As you can see, you'll need a simple gauge that's set to the width of the cove in order to complete this step. Then you'll mark a line to match the angle of the cut.

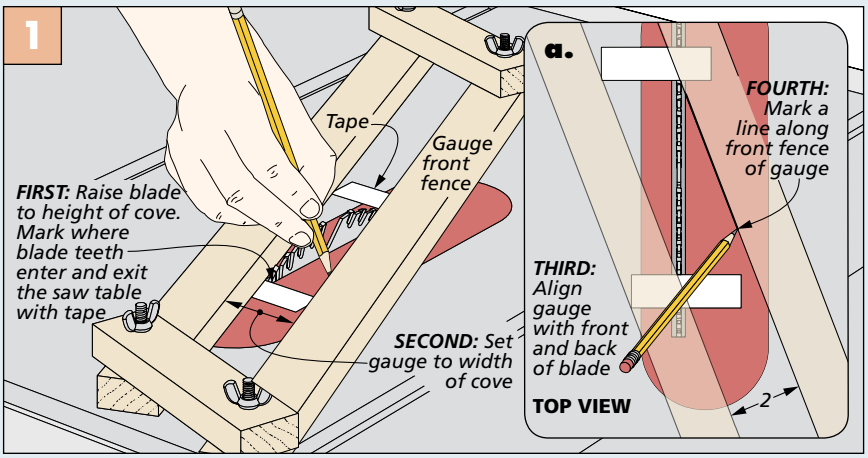
Once the angle is established, a pair of fences guide the blank, as shown in Figure 2. You want the piece to slide smoothly without binding or moving from side to side.

MAKE THE CUT. The secret to cutting this cove is to make multiple passes. Raise the blade about 1/8" above the table, and pass the blank over it, using push blocks to guide the workpiece. You'll then flip the board as shown to cut the second cove. After raising the blade a bit, repeat the process until you have completed the coves. A little sanding to smooth the coves completes the job.

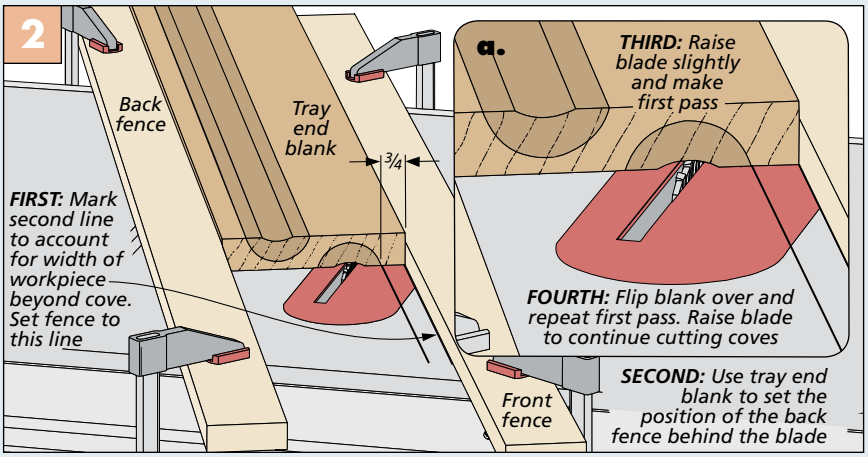




How-To: CUT THE COVES

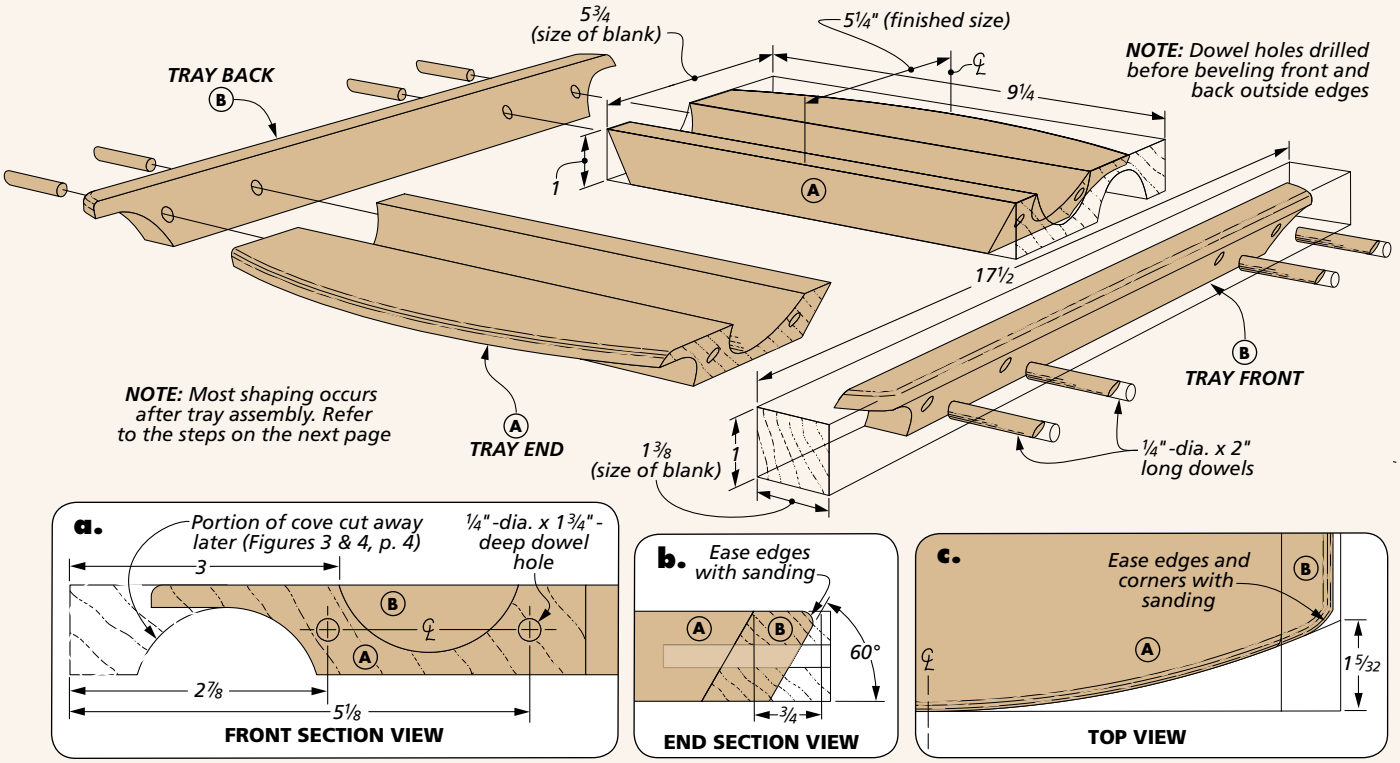

1
Tape
Gauge front fence
FIRST: Raise blade to height of cove. Mark where blade teeth enter and exit the saw table with tape
SECOND: Set gauge to width of cove
a.
FOURTH: Mark a line along front fence of gauge
THIRD: Align gauge with front and back of blade
TOP VIEW
2

Set the Angle. Raise the blade to the height of the cove, and mark the ends of the blade with masking tape. Then set the gauge to the width of the cove, and align the gauge with the tape. Mark a pencil line along the front fence.


2
Back fence
Tray end blank
¾
FIRST: Mark second line to account for width of workpiece beyond cove. Set fence to this line
a.
THIRD: Raise blade slightly and make first pass
FOURTH: Flip blank over and repeat first pass. Raise blade to continue cutting coves
Front fence
SECOND: Use tray end blank to set the position of the back fence behind the blade

Cut Coves. Mark a second pencil line parallel with the first to account for the width of the workpiece beyond the cove. Set a pair of fences, and cut the coves in a series of passes, removing between 1/16" and 1/8" of material each time.

©2014 August Home Publishing Co. All Rights Reserved.



Building the TRAY FRAME

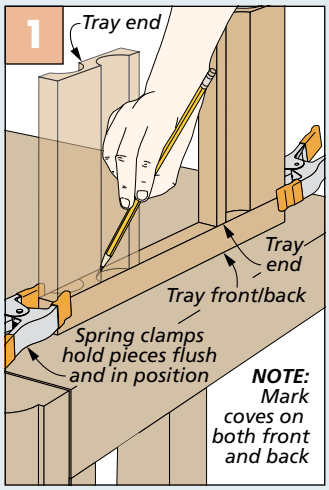
The next steps involve adding a front and back to the coved tray ends and then going through the steps required to shape the completed tray. That process starts with cutting the longer blank in two to form the tray ends, as shown above. As the outline in the drawing indicates, I would leave them a little long for now. That's because you'll come back later and bevel the tray ends to their final dimensions.

TRAY FRONT & BACK. But first, you'll want to make the tray front and back. These start as square blanks, as shown above. You'll trim them to final shape through the process of building the tray.

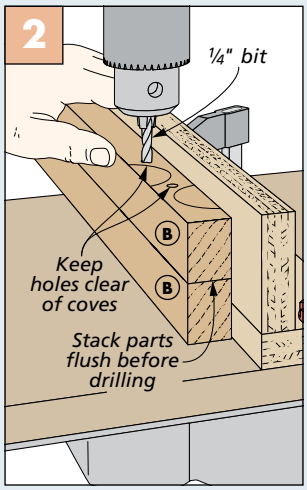
Once the tray is assembled, dowels at each end help to hold it together. It's important that the holes for the dowels don't intersect the coves in the tray ends. The dimensions in detail 'a' above help with this, but I also traced the coves, as shown in Figure 1, just to be on the safe side. Then you can drill the holes in the front and back (Figure 2).

BEVEL CUTS. The tray ends, front, and back all have mating bevels cut on them

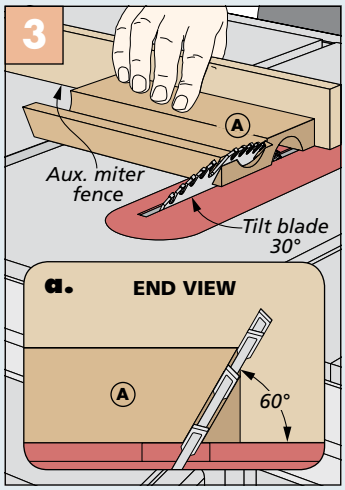
How-To: DRILL PILOT HOLES & CUT BEVELS



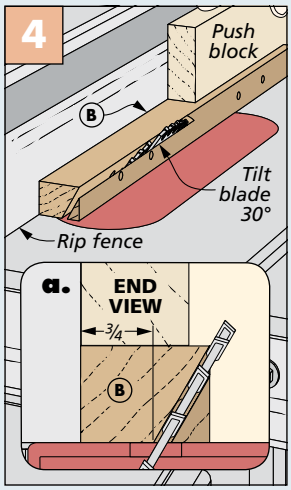
Trace. To help locate dowel holes, trace the cove profiles onto the front and back.



Drill Holes. Stack the front and back, and drill pilot holes for the dowels.



Bevel Ends. Using a miter gauge, bevel the ends of the tray ends at the table saw.



Bevel Edges. Repeat the cut on the edges of the tray front and back.

©2014 August Home Publishing Co. All Rights Reserved.

where they are glued together. You can use the same blade tilt setting to cut all the pieces, as shown in Figures 3 and 4 on the previous page.

GLUEUP. You're now ready to glue the tray ends to the tray front and back. The only challenge with this glueup is the mating bevels will want to shift as you apply clamping pressure. You can prevent this with blocks clamped across the joint lines, as shown in Figure 1 at right.

DOWELS. To reinforce the joints, add dowels to the corners of the tray. You already drilled holes in the front and back, so use those as guides for drilling the holes in the tray ends (Figure 2). Then glue in the dowels and sand them flush with the surface.

HANDLES. The next steps involve shaping the ends of the tray to form the handles for carrying it. As you can see in the main drawing and detail 'a' on the opposite page, you cut away about half of the outer cove on each tray end in order to form these handles. Figures 3 and 4 at right show the two table saw cuts required to do this.

After making these cuts, there will still be small "ears" of material left over on the tray front and back (Figure 5). You'll want to remove these in order to make the half-coves consistent across the entire end of the tray.

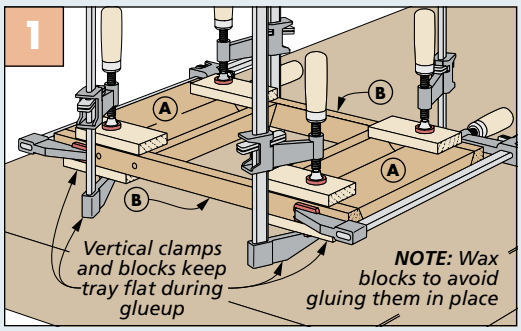
I took care of this with a series of passes over the saw blade as shown in Figure 5. Carefully lower the blade and reset the rip fence for each pass to cut away this extra wood. Then sand it all smooth as shown in Figure 6.

BEVEL EDGES. At this point, you're finally ready to bevel the outer edges of the tray. After tilting the blade, position the rip fence so the waste falls to the outside, as indicated in Figure 7.

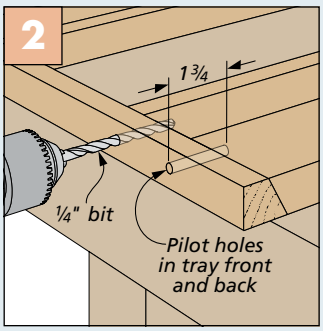
CURVED ENDS. Each end of the tray has a gentle arc to it. I laid this out as shown in detail 'c' on the previous page and then cut it at the band saw, staying slightly outside of the layout lines (Figure 8).

SANDING. Before you can call the tray portion of this project complete, it's time to get out the sandpaper and spend a bit of time getting the entire tray smooth. Be sure to note the slight radius on the corners, as well as the roundover along all of the ends and edges of the tray. I accomplished all of this with a little hand sanding.

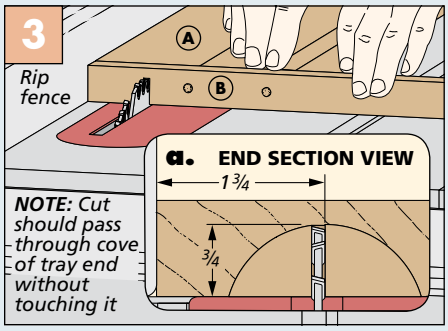
How-To: COMPLETE THE TRAY FRAME



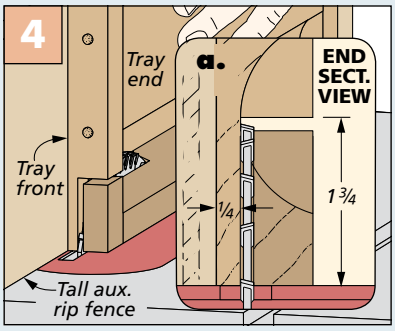
Tray Glueup. Join the tray front and back to the tray ends with glue and clamps. Use blocks at the joints to prevent shifting during glueup.



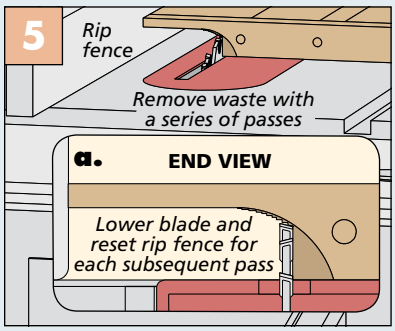
Drill Holes. Use holes in the tray front and back as guides for drilling the tray ends.



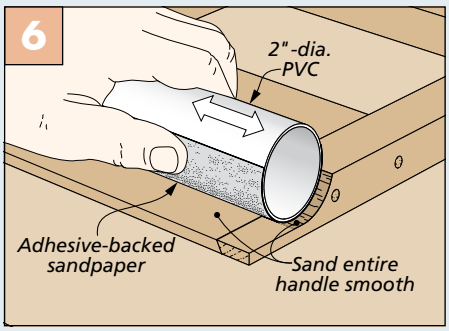
Kerf Tray. Forming the tray handle starts with making a cut at each end of the tray, as shown above.



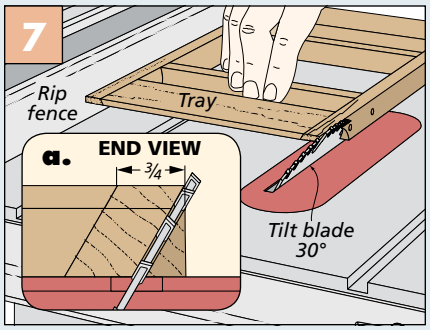
Form Handle. To remove material for the handle, stand the tray on end and pass it through the blade.



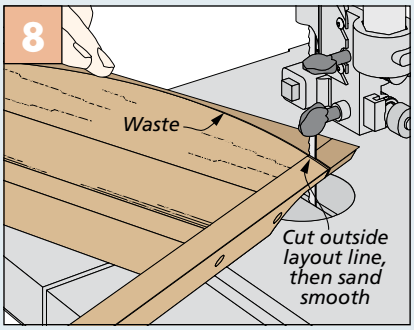
Notch Front & Back. A series of table saw passes is required to complete the cove on the tray.



Sand It Smooth. A piece of 2"-dia. PVC makes the perfect sanding block for smoothing the cove on the tray ends.

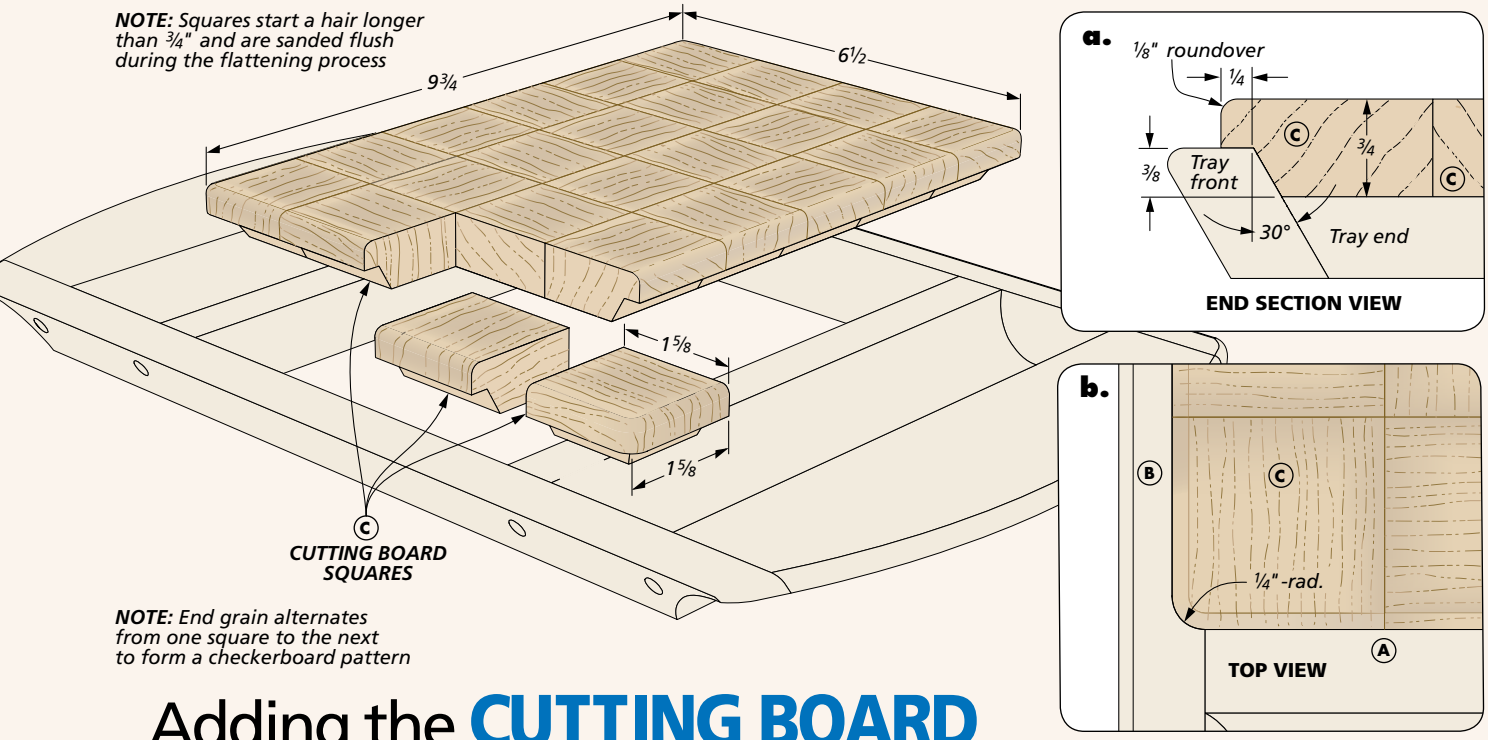


Edge Bevel Cut. Tilt the table saw blade, then rip both edges of the tray to complete the bevels.



Cut the Arcs. Finally, lay out arcs on the tray ends and cut them to shape at the band saw.

©2014 August Home Publishing Co. All Rights Reserved.



Adding the CUTTING BOARD

With the tray complete, you can turn your attention to the small cutting board that fits in the center. It's built up from small maple squares that are glued together with the end grain exposed at the top and bottom.

PREPARE YOUR STOCK. You'll need to cut out a series of squares — 24 in all — to assemble the cutting board. So you'll want to start with a piece of 8/4 stock and rip and plane it until the blank is 1⅝" square (Figure 1 below).

CROSSCUT SQUARES. The next stop is the table saw, where a simple setup ensures that you cut all the squares to a consistent length (Figure 2). Though the finished thickness of the cutting board is ¾", you'll note that I left these pieces just a hair longer at this point. There is a simple reason: Once the cutting board is all glued together, it requires a bit of sanding to get it completely flat and smooth.

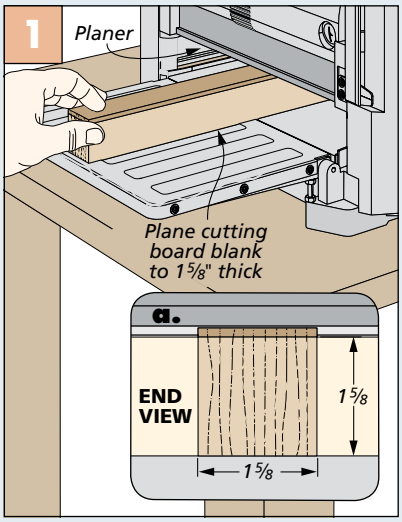
To cut the squares, I clamped a wide, L-shaped stop block to the rip fence, well ahead of the blade. This wider block allows plenty of clearance between the rip fence and the blade, so the squares won't get trapped and bind when you cut them away from the blank. After setting the rip fence, you simply butt the blank against it and cut out the square, as shown in Figure 2. Now repeat the process to make all the squares.

GLUEUP JIG. With all the squares cut to size, it's now time to turn your attention to the glueup. It's difficult to align this many pieces in a single glueup, so I used the glueup jig and a specific sequence to assemble the cutting board. The box on the opposite page provides the details.

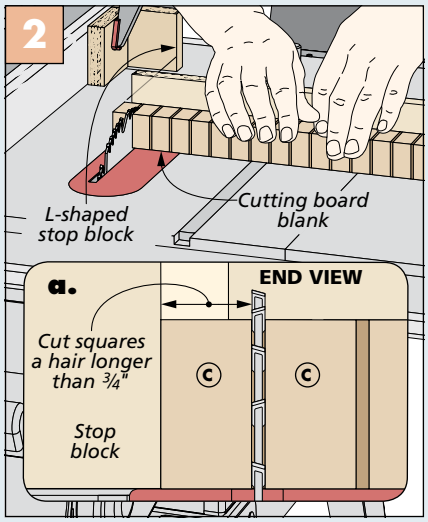
The jig is fairly simple to put together. It has a base with two fixed fences that are joined at the corners in an L-shape. I waxed these pieces well to ensure that the blocks wouldn't stick to them. Two separate hardwood strips are used as clamp cauls on the other end and edge of the assembly.

GLUING UP THE BOARD. When building the cutting board, you'll work on one row at a time, gluing together a section of four squares before moving on to the

How-To: PLANE & CUT SQUARES



Plane It Square. A thickness planer is the perfect tool for forming a perfectly square blank.



Crosscut Squares. Clamp a stop block to the rip fence, and make multiple passes to cut out the board squares.

©2014 August Home Publishing Co. All Rights Reserved.

next row of squares. You'll want to alternate the grain direction from one square to the next as you add them to the glueup. This doesn't impact the strength of the glueup, but it does make the cutting board look a lot nicer.

Once you have a row of four squares glued together, add the cauls and clamp across them, as shown in Figure 1 on the right. Then wait about 30 minutes, remove them from the jig, and clean up the glue squeezeout with a scraper and some sandpaper.

Now repeat the process, adding another row of squares (Figure 2), waiting 30 minutes, and cleaning up the assembly. Continue adding rows this way until the cutting board is complete.

SAND IT SMOOTH. Using the glueup jig should keep the cutting board fairly flat, but some sanding will still be necessary after the fact to flatten and smooth the board. The perfect tool for the job is a stationary drum sander. But if you don't have one, some adhesive-backed sandpaper fixed to a flat surface, such as a table saw top, does the job nicely.

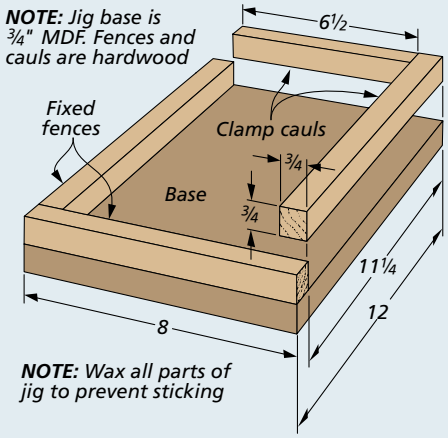
BEVELED RABBET. The next step is to cut a beveled rabbet along the bottom of the cutting board to make it fit into the opening in the tray. The process for forming this is shown in Figures 3 and 4. I cut the rabbet first with a dado blade, and then tilted a standard saw blade to form the bevel.

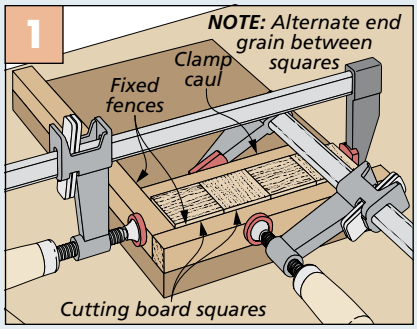
ROUNDOVER & RADIUS. The cutting board is nearing completion. A few more details include a radius that is sanded at each corner, and a small roundover around the perimeter of the top to ease the edges (Figure 5).

FINISHING TOUCHES. I recommend butcher block oil as a nice finish for both the tray and cutting board. It's a food-safe solution that can be cleaned with soap and water. It's also easy to reapply in the future after the tray and cutting board have seen a lot of use.

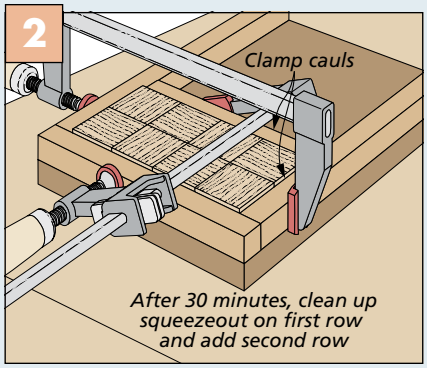
A TRAY TO ENJOY. And plenty of use is what your great-looking new serving tray and cutting board are sure to see. Once your friends and family get a look at your cool new project at a gathering, they're sure to ask for repeat appearances. It's one project where the results are almost as delicious as what you serve on top of it.

How-To: BUILD THE CUTTING BOARD

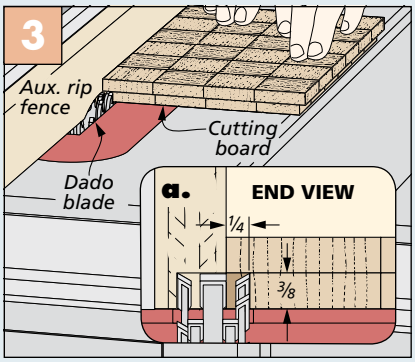




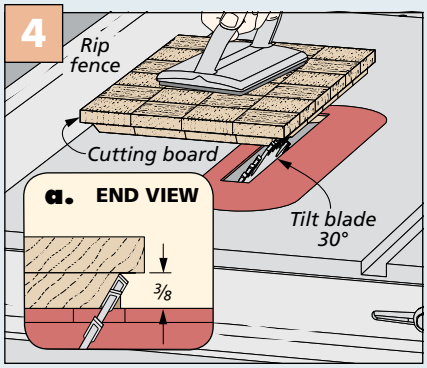
Glue Up a Row. Glue the first row of squares together, and apply the short caul and clamps to hold them.



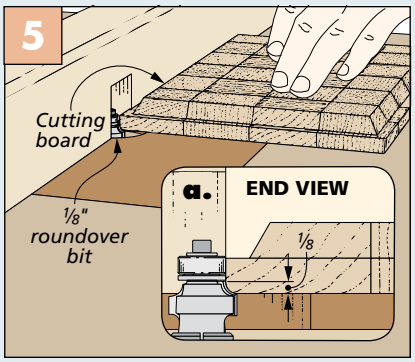
Repeat the Glueup. Repeat the process to add the subsequent rows of squares until the board is complete.



Cut Rabbet. A dado blade buried in an auxiliary rip fence makes quick work of cutting the rabbets.



Bevel Edges. Now tilt a standard blade and bevel the rabbets on all four edges of the cutting board.

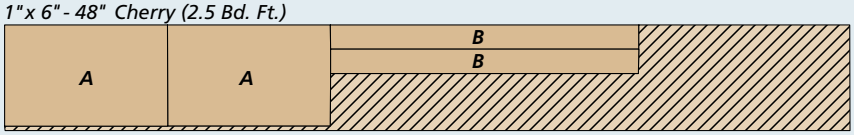


Rout a Roundover. Rounding the ends and edges at the router table completes the cutting board.

Materials, Supplies & Cutting Diagram

A	Tray Ends (2)	1 x 5¾ - 9¼	**C**	Cutting Bd. Squares (24)	1⅝ x 1⅝ - ¾
B	Tray Front/Back (2)	1 x 1⅜ - 17½	•	(1) ¼"-dia. x 18" Cherry Dowel	

1"x 6" - 48" Cherry (2.5 Bd. Ft.)



1¾"x 1¾" - 24" Hard Maple (.6 Bd. Ft.)

©2014 August Home Publishing Co. All Rights Reserved.

Project Sources

MAIL ORDER SOURCES

Woodsmith Store
800-444-7527

The serving tray was finished with butcher block oil. Once it's applied, the tray cleans easily with soap and water. The oil needs to be reapplied occasionally to season the board and tray.

Manufacturers and retailers will periodically redesign or discontinue some of their items. So you'll want to gather all the hardware, supplies, and tools you need before you get started. It's easy to adjust dimensions or drill different-sized holes to suit your hardware.

©2014 August Home Publishing Co. All Rights Reserved.